# CHECKLIST ENVIRONMENTAL ASSESSMENT

| | |
|---|---|
| **Project Name:** | Exploration of Gravel Resource |
| **Proposed Implementation Date:** | 2018 |
| **Proponent:** | Riverside Contracting, Inc. |
| **Location:** | T5S-R8E-Sec 22 |
| **County:** | Park |

## I. TYPE AND PURPOSE OF ACTION

Riverside Contracting, Inc. (Henceforth referred to as the proponent) has requested to conduct excavation of gravel test holes on the State Trust land mentioned above. This project would utilize a backhoe to dig holes to a depth of approximately 12 feet in depth and backfill the holes once they have been evaluated. The proposed test pits are located in an area of reasonably high gravel demand and fairly low availability.

## II. PROJECT DEVELOPMENT

### 1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

*Provide a brief chronology of the scoping and ongoing involvement for this project.*

The proponent has submitted a Permit to Test for Aggregate to the DNRC to explore for gravel resources. On September 26, 2018 the Bozeman Unit manager, Minerals Management Bureau staff, and the DNRC archaeologist conducted a field review to evaluate the proposal. The applicant was present. The surface lessee for the tract of land within the proposed area to test has been notified by the Bozeman Unit Manager.

### 2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

None are known.

### 3. ALTERNATIVES CONSIDERED:

Alternative A- Allow the proponent to conduct the test hole survey of these parcels of State Trust Land

Alternative B- No Action

## III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

### 4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

*Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.*

Alternative A- Site geology consists of glacial drift deposits. The geomorphology of the site has been shaped by alluvial processes – either by glacial drainage flows or historic positions of the Yellowstone River, or a combination of both. The site is characterized by terraces above the Yellowstone River Valley. A historic flow channel approximately 1,000 feet wide and 50 feet deep occupies the northwest part of the site.

Overlying soils are composed of gravelly to cobbly sandy loams. Care would be taken to preserve the soil when digging the test holes by separating the soil from the underlying material. The soils are susceptible to weed infestation once replaced and will be monitored thereafter.

Alternative B- No Impacts expected

## 5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

*Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.*

Alternative A- Test hole sites are proposed to be located approximately 70 to 260 feet in elevation above the Yellowstone River and from 1,000 to over 5,000 feet west of the river itself. There are no modern surface water features present onsite. Park Branch Canal is located 650 to over 4,500 feet east of where test pits would be dug. Test holes would extend approximately 8 to 12 feet below ground surface and would be very unlikely to encounter any groundwater. Well logs drilled on the same landform within 1,000 to 5,000 feet south and west report static water levels ranging from 120 to 190 feet below ground surface. The proposed test pits would likely have negligible effect on any water resources.

Alternative B- No Impacts Expected

## 6. AIR QUALITY:

*What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.*

Alternative A- No significant impact expected.

Alternative B- No Impacts Expected

## 7. VEGETATION COVER, QUANTITY AND QUALITY:

*What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.*

Alternative A- Vegetation communities may be affected by this project. The use of equipment has the potential to temporarily damage some areas of the plant community. This may come from the vegetation being compacted and excavated by equipment. Damage to the plant community should be lessened at this time of year since most species will be entering dormancy. There is no evidence of rare plants or cover types in the scope of the project. Current plant species which occupy the survey area primarily include bluebunch wheatgrass, western wheatgrass, blue grama, prairie junegrass, club moss, and various other grasses and forbs. Overall composition is thin.

Disturbed areas would be reseeded with a native plant seed mix.

Alternative B- No Impacts expected

## 8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

*Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.*

Alternative A- There may be minimal disruption to the wildlife that inhabit the area. The scale and length of the project should not be enough to permanently disrupt the wildlife species. Species in the area include whitetail and mule deer, antelope, raptors and other birds, various rodents, rabbits, reptiles, etc.

Alternative B- No Impacts Expected

**9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:**

*Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.*

Alternative A- A search of the Montana Natural Heritage Database shows that no species of concern were noted within the general project area during any recent years. Occasional species are noted sporadically over the span of decades along the river corridor.

Alternative B- No Impacts Expected

**10. HISTORICAL AND ARCHAEOLOGICAL SITES:**

*Identify and determine effects to historical, archaeological or paleontological resources.*

Alternative A- "Three Class III cultural resource inventories (1985, 2013, and 2018) have been conducted within different portions Section 22, T5S R8E. The 2013 and 2018 inventories are relevant to the area of potential effect (APE) on state land as it applies to this proposed development. During the course of the 2013 and 2018 inventory work six cultural resources were located. These have not been formally recorded, but will be shortly. They are referred to here by field number designations (EP-1, EP-2, EP-3, EP-4, IF-10-02 and IF 10-03). Because all six resources can be avoided with backhoe trench excavation for gravel exploration and assessment work, the proposed project will result in *No Effect* to *Antiquities* as defined under the Montana State Antiquities Act. A formal report of findings pertaining to the 2018 inventory work is forthcoming."

Alternative B- No Impacts Expected

**11. AESTHETICS:**

*Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.*

Alternative A- Very little impact should be felt aesthetically in the scope of this project. There should be minimal lasting affects on the landscape from the excavation of test pits. The project should only last one or two days, the pits immediately backfilled, and the soil replaced.

Alternative B- No Impacts Expected

**12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:**

*Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.*

Alternative A- No impacts expected.

Alternative B- No Impacts expected

**13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:**

*List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.*

None known

## IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

### 14. HUMAN HEALTH AND SAFETY:

*Identify any health and safety risks posed by the project.*

Alternative A- Typical safety risks for laborers working with mechanized equipment would be present, but the potential risk should be minimal with proper safety efforts.

Alternative B- No Impact Expected

### 15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

*Identify how the project would add to or alter these activities.*

Alternative A- The proposed project is for testing a resource only and would have minimal effects on industrial, commercial, and agricultural activities.

Alternative B- No Impacts Expected

### 16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

*Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.*

Alternative A- This project would have minimal effects on creating, moving, or eliminating jobs.

Alternative B- No Impacts Expected

### 17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

*Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.*

Alternative A- No Impacts Expected

Alternative B- No Impact

### 18. DEMAND FOR GOVERNMENT SERVICES:

*Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services*

Alternative A- No Impacts Expected

Alternative B- No Impact

### 19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

*List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.*

Alternative A- No Impact Expected

Alternative B- No Impact

**20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:**

*Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.*

Alternative A- On the day that machinery is actively digging test holes, there may be some disruption of hunting activity as the site is legally accessible and the project is proposed during open hunting seasons.

Alternative B- No Impact

**21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:**

*Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.*

Alternative A- No Impacts Expected

Alternative B- No Impact

**22. SOCIAL STRUCTURES AND MORES:**

*Identify potential disruption of native or traditional lifestyles or communities.*

Alternative A- No Impacts Expected

Alternative B- No Impact

**23. CULTURAL UNIQUENESS AND DIVERSITY:**

*How would the action affect any unique quality of the area?*

Alternative A- No Impacts Expected

Alternative B- No Impact

**24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:**

*Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.*

Alternative A- This project will provide the trust with the potential for future development of aggregate resources and royalty income.

Alternative B- No Impact

| EA Checklist Prepared By: | Name: Bryan Allison | Date: October 2018 |
|---|---|---|
| | Title: Mineral Resource Specialist | |

## V. FINDING

**25. ALTERNATIVE SELECTED:**

Alternative A

**26. SIGNIFICANCE OF POTENTIAL IMPACTS:**

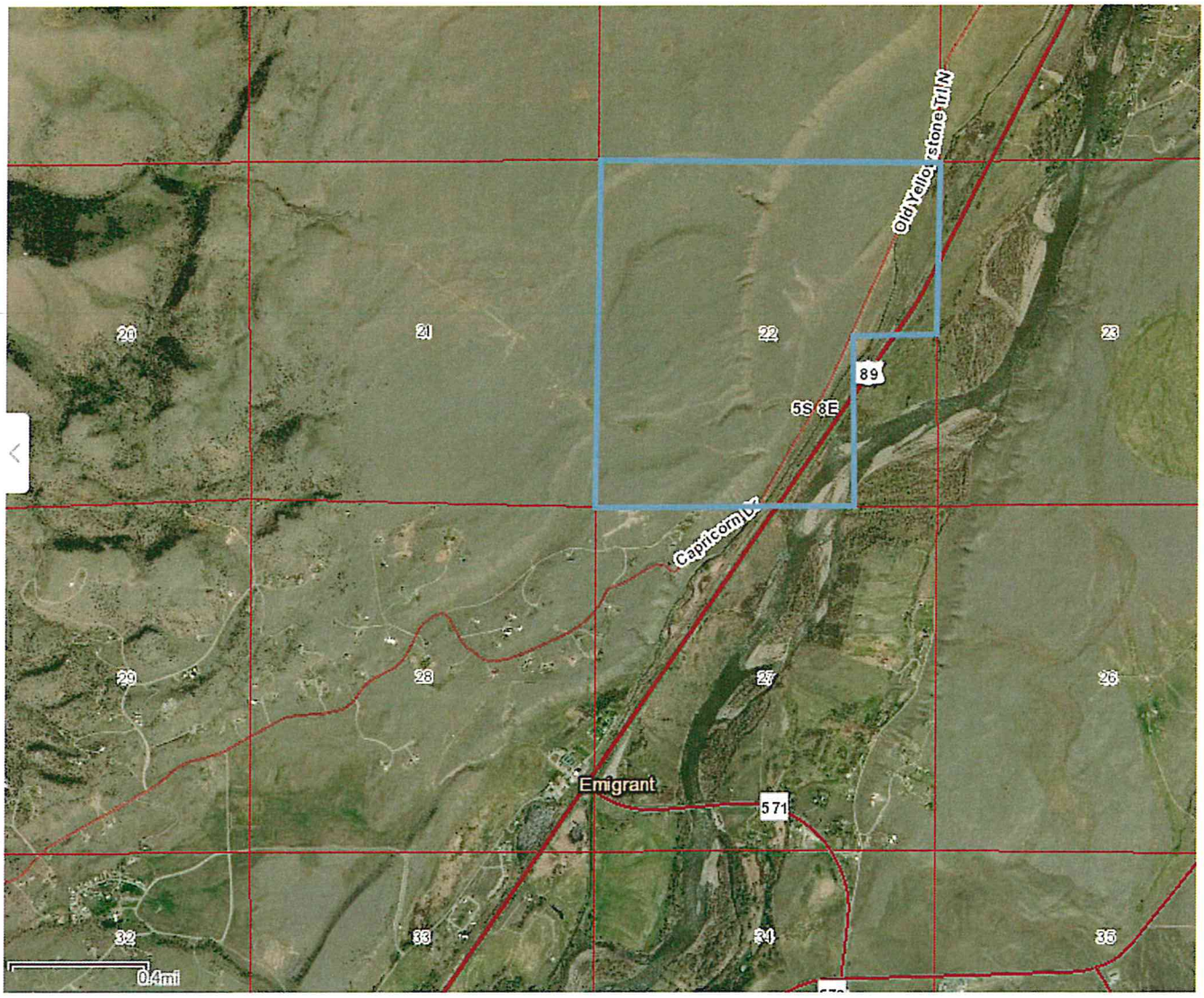
The granting of the requested aggregate test pits on these tracts of state-owned trust lands should not result in nor cause significant negative environmental impacts. The proposed action satisfies the trusts fiduciary mandate and ensures the long-term productivity of the land. An environmental assessment checklist is the appropriate level of analysis for the proposed action.

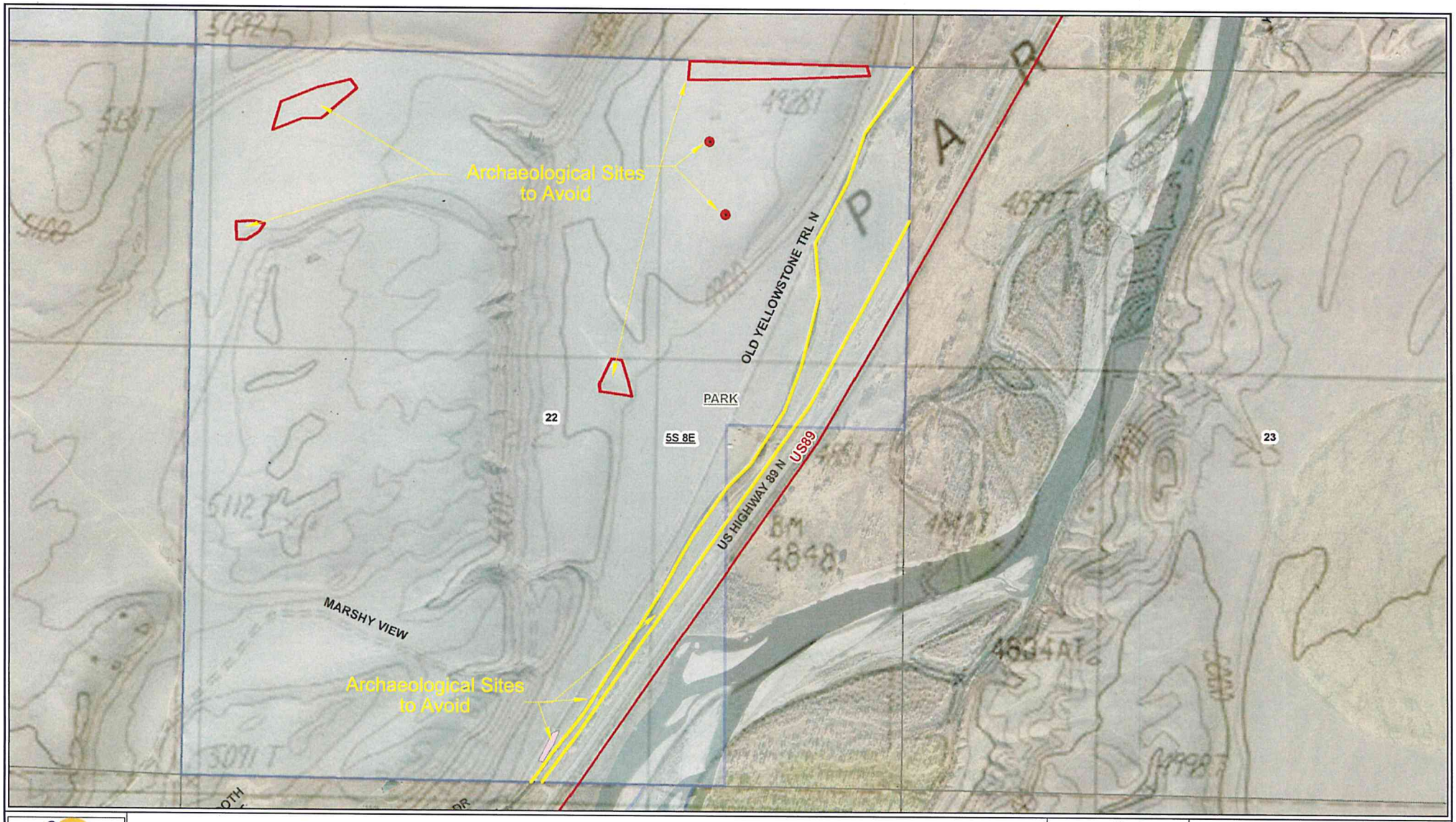
**27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:**

[ ] EIS [ ] More Detailed EA [X] No Further Analysis

| EA Checklist Approved By: | Name: Trevor Taylor | |
|---|---|---|
| | Title: Petroleum Engineer, Minerals Management Bureau | |
| Signature: Trevor E Taylor | | Date: 10/3/18 |

ExpertGPS
Riverside Construction, Inc.
Park County
DMRC Site #1
T10S, R98E, SEC 27
Locations for dipping holes


Old Yellowstone Trl N
20
21
22
23
89
5S 8E
Capricorn D
29
28
27
26
Emigrant
571
32
33
34
35
0.4mi




# Riverside Paradise Valley Gravel Pit Proposal - Archaeological Sites

400' 0 400' 800' 1,200'
Map Scale: 1" = 800'

N
W E
S

Map Description: Riverside Pit Arch Sites
Location: Park County 5S-8E-S22
Date: October 3, 2018
Prepared By: TT - MMB